

REQUEST FOR BID

36625

Soil Boring and Sampling
Saad Site, Nashville, TN

1. GENERAL

Ecology and Environment, Inc. (hereafter, "E & E"), a New York Corporation, with headquarters at 195 Sugg Road, Buffalo, New York 14225, and with a business office at 4319 Covington Highway, Decatur, Georgia 30035, has entered into a contract (Contract #68-01-6056) with the United States Environmental Protection Agency (hereafter, "EPA"), dated March 20, 1980, to furnish technical, engineering and managerial services in support of the EPA Field Investigation of Uncontrolled Hazardous Waste Sites.

EPA has tasked E & E to install monitoring wells in a waste disposal area, a railroad maintenance yard, and at off-site locations on a site in Nashville, Tennessee. The purpose of this effort is to determine the types of chemicals present in two suspected sources of ground water pollution and will attempt to demonstrate off-site migration toward a nearby surface spring known to be contaminated.

2. INFORMATION TO BIDDERS

The local surface soils are underlain with limestone that is fractured and is suspected of containing solution cavities. A low area that extends from the L&N railroad yard (see Attachment 1) to the John P. Saad property has received chemical contamination from past spills of fuel and oil from the railroad operations and from the Saad Company. From 1970 until 1979, Saad dumped chemical liquid wastes into a pond in this low area that extended into the adjacent property now occupied by the Franklin Brick Company. This pond has since been pumped and filled with gravel and limestone.

A spring on the Croft farm has been contaminated for several years, and despite the halting of dumping by Saad, and the

installation of spill containment equipment by the railroad the spring continues to be polluted. It is suspected that underground liquids, perhaps held in fractures and solution cavities continue to contaminate ground water which discharges at the spring. A recent geological study indicates that ground water flows from the low contaminated area to the Croft farm spring. The purpose of this study is to confirm the presence of ground water and to look for pollutant migration.

E & E cannot guarantee or state with certainty how soon or when this drilling program will commence. However, E & E estimates that work will begin as soon as possible after selection of the drilling subcontractor. Questions with respect to technical work should be directed to the attention of the Project Officer, Gary P. Clemons, at (404) 288-7711, and questions concerning contract procedures to Karl Lewin, at the same number.

3. SITE SAFETY

E & E will have full responsibility to assign safety procedures to be used in the well installations. At this time it is anticipated that respirators will be required during work on the Saad property.

E & E will provide training in respirator use and the needed respirators. This training will consist of a 4-6 hour session to be held at a site in Nashville. The contractor will be responsible for having sufficient personnel attend this training to cover the field work and any unanticipated crew changes.

4. SCOPE OF WORK

The work to be done includes the furnishing of all materials, labor, and equipment, necessary for drilling and installation of the monitoring wells and sampling as specified hereafter.

Types of Wells/Well Depths

The subcontractor will use a standard portable rotary rig suitable for installation of 7 wells to a depth of approximately 50

feet into limestone. Roller cone rock bits with clear fresh water (for drilling fluid) will be used. The water source must be approved by E & E prior to use. Temporary 6-5/8 inch steel casing (approximately 20 feet) will be used as surface casing. Hollow stem augers may be used instead of steel casing. Such augers must have hollow stems to allow for 4 1/2 casing to be inserted. A pilot hole will be drilled to total depth. The pilot hole diameter must be large enough to allow the setting of a standard 4 inch submersible water pump by E & E at a later date. After completion of the pilot hole 4 1/2 inch type-304 stainless steel casing will be installed and cemented in place by the tremie pipe method. A sand plug will be set in the pilot hole to prevent loss during the grouting stage. This sand shall be clean, washed, and bagged sand of medium grain size. the 6 inch casing (or augers) will be pulled from the hole as the annulus is grouted. Standard water well development by the single eductor-air compressor method will be used to develop the wells. A 24-hour waiting period will be allowed for cement cure unless otherwise directed by E & E personnel.

A locked and hinged cap will be welded to the well head. One well will be drilled using a standard 3 1/2 inch rock core barrel. After coring the pilot hole will be reamed to allow the submersible pump installation by E & E at a later date.

Exact locations of wells will be determined by E & E personnel in the field. The subcontractor shall provide sufficient lumber for a platform on which the rig will operate. In addition the subcontractor will provide sufficient lumber to lay a wheel-track road from the hard surface road to each drilling site. This distance will be approximately 500 feet.

The subcontractor shall provide teflon tape for all pipe joints. The subcontractor shall also provide a portable fan sufficient to direct vapors away from the drill crew. All drilling equipment and casing will be cleaned with a steam generator prior to drilling the first hole and when drilling equipment is moved to any new well location unless specified otherwise in the field by E & E personnel. This cleaning process will consist of steam cleaning with water of drinking quality. No oil or grease may be used during drilling in such a manner as to contaminate the drilled hole.

Well Casing

Temporary well casing will be black steel 6 5/8 inch outside diameter or hollow stem augers with sufficient internal clearance for inserting 4 1/2 casing. Permanent casing will be type 304 stainless steel 4 1/2 inch outside diameter. Casing lengths will be approximately 20 feet. Either threaded and coupled or plain-end casing is acceptable.

Well Logs

As drilling proceeds, a well log containing the following information will be kept by the driller:

1. Location
2. Well Number
3. Depth to first water encountered
4. Lithology descriptions and depths
5. Driller's comments
6. Total well depth
7. Amounts of cement grout and sand used
8. Date and time of drilling and weather conditions
9. E & E and contractor personnel present during drilling
10. Casing lengths used

Annulus Grouting and Development

The annular space of the wells will be filled with cement grout by the tremie pipe method from the bottom of the casing to ground surface. The wells will be developed by the single eductor air compressor method. Water developed from the wells will be contained on site in portable pits unless otherwise directed by E & E personnel.

Sampling

Representative samples will be collected during drilling at five

foot intervals and at lithologic changes. Cuttings will be stored in glass jars. All samples will remain on site until disposition is determined by E & E.

5. CONTRACT PARTICULARS

The subcontractor shall, at his own expense, procure all permits, licenses and certificates required of him by law for the execution of the work hereunder. The subcontractor shall comply with all federal, state and local laws, ordinances, rules and regulations relating to the performance of the work hereunder.

Upon completion of the work, the complete drilling log of all wells shall be forwarded by the subcontractor to Dan Harman at the office of Ecology and Environment, Inc., 4319 Covington Highway, Decatur, Georgia 30035.

Complete typewritten drilling logs referenced to ground surface together with all notes, remarks, and pertinent information required by this specification shall be submitted to E & E by the subcontractor at the end of this job.

The contract items include all services, labor, equipment, transportation, material, and supplies for the complete work.

Payment for these items shall include compensation for drilling, well installation, and well development; obtaining, packing, marking, and submitting samples; recording and submitting data incidental to each item; material costs using slotted well screens; and any down time incurred by the subcontractor as explained under Bid Particulars.

No other payments for any specified or indicated work nor for any work implied therefrom shall be made. No payment shall be made for drilled holes abandoned without authorization of E & E nor for drilled holes for which satisfactory samples and data are not submitted.

At the completion of field operations, the subcontractor shall restore the site as close to its original condition as reasonably possible.

6. BID ITEMS

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The quantities stated on the Bid Sheet (Page 10) are approximate and are for the specific purpose of comparing bids. E & E does not guarantee that those items or quantities will be performed. E & E reserves the right to vary the quantities or delete items in their entirety, and the subcontractor shall not be entitled to any extra payment due to such deleted items.

Item 1. Mobilization and Demobilization

This item shall carry all charges incident to equipment set-up and removal, in order that the charges need not be distributed among the more variable items of the Contract. This item will be paid at the Contract lump sum price for mobilization and demobilization and shall include the furnishing of machinery, tools, and all other equipment necessary to carry on and complete the work properly. All material or equipment furnished under this item shall remain the property of the subcontractor and shall be maintained, cared for, and disposed of by him. This item will also include any costs incurred by the subcontractor for cleaning of his drilling and sampling equipment.

Item 2. Well Drilling/Sampling

This work will be paid for at the respective Contract unit price per linear foot of drilling/sampling. This work will be measured for payment by the actual number of vertical linear feet drilled for each accepted hole between the ground surface at the hole and the bottom of the accepted well hole or the bottom of the last sample taken, whichever is deeper. This item will include the furnishing of a complete well log as outlined in the Specifications.

Item 3. Samples

The number of samples to be paid for under these items will be the number of completed samples actually taken and accepted. This

work will be paid for at the Contract unit price, which price shall include compensation for all work incidental to the samples including shipping and labelling that is not covered under other Contract items.

7. BID PARTICULARS

If work by the subcontractor is delayed for more than 30 minutes as a result of actions by E & E, the subcontractor shall be entitled to reimbursement. Both the subcontractor and E & E will record any such instances and the time involved if in excess of 30 minutes. At the project completion, the subcontractor will be paid for the accumulated totals of these delays. Payment will be at the subcontractors per diem rate prorated on an eight hour day. Therefore, E & E also requires the subcontractor to submit his per diem rate schedule in his letter accompanying the bid sheet.

Bids for the well drilling and installation/sampling at the Saad site will be accepted for the entire project as outlined in this document, and shall be received at Ecology and Environment, Inc., 4319 Covington Highway, Decatur, Georgia 30035 no later than 4:00 pm, Eastern Daylight Time, _____. The attached Bid sheet shall be used, the bid shall be enclosed in an envelope, and the envelope shall be marked in the lower left hand corner as follows:

Bid Saad Site, Nashville, TN; TDD # F4-8204-06B

A letter accompanying the bid sheet shall also include:

1. An estimate of the number of days required to complete the drilling and construction of the wells.
2. Lead time required by subcontractor after award of contract and before work start-up.
3. At least three client references which E & E may contact from previous jobs and in particular those for which the subcontractor may have had experience drilling and installing monitoring wells

at potential hazardous waste or chemical spill sites,

4. The subcontractor's per diem rate schedule, and
5. Type of drilling equipment and the drilling method(s) to be used.
6. Proof in insurance coverage.

The authorization to proceed with the work by the selected bidder shall be under a subcontract issued by E & E. A cost plus, reimbursable contract, with provision for designated lump sum items, will be used. A copy of both E & E's General Purchase Order - Terms and Conditions and E & E's requirement for insurance coverage to be furnished by the subcontractor are also included.

The selected bidder agrees by submitting a response to this Request for Bid to submit a completed Optional Form 60 within seven (7) days after being notified of his selection.

This project has a high priority rating. The bids must be reviewed and approved by E & E and EPA. E & E and EPA reserve the right to accept the bid most advantageous to the completion of the work or to reject any or all bids, as they may determine in their sole and absolute discretion, and to proceed no further in this matter.

BID SHEET
SAAD SITE
NASHVILLE, TN

Item No.	Estimated Quantity	Brief Description, Unit or Lump Sum Price Bid in Both Words and Figures	Total in Figures
1	lump sum	For furnishing all necessary equipment and personnel ready for operation at the site of the work, the removal of all equipment, and clean-up and restoration of property and equipment, the lump sum of _____ dollars and _____ cents (\$ _____)	\$ _____
	350 l.f.	Well Drilling, per linear foot _____ dollars and _____ cents (\$ _____)	\$ _____
3	50 l.f.	Rock coring, per linear foot _____ dollars and _____ cents (\$ _____)	\$ _____
4a	140 l.f.	4 1/2 inch type 304 stainless steel well casing, per linear foot _____ dollars and _____ cents (\$ _____)	\$ _____
4b	20 l.f.	6 5/8 inch black steel casing, per linear foot _____ dollars and _____ cents (\$ _____)	R _____

BID SHEET
SAAD SITE
NASHVILLE, TN

Item No.	Estimated Quantity	Brief Description, Unit or Lump Sum Price Bid in Both Words and Figures	Total in Figures
4c	350 l.f.	Installation of monitoring/backfilling wells, per linear foot _____ dollars and _____ cents (\$ _____)	\$ _____
4d	lump sum	Backfill Materials _____ dollars and _____ cents (\$ _____)	\$ _____
5	7 hours	Well development, per hour (prorated per diem) _____ dollars and _____ cents (\$ _____)	\$ _____

BID LIST

Miller Drilling Co., Inc.
P. O. Box 706
Lawrenceburg, TN 38464
(615) 762-7548

Mr. G. E. Miller
Kenneth Gentry

Kerine Cothram Well Drilling
Route 4, Box 36
Columbia, TN 38401
(615) 388-4173

Mr. Kerine Cothram

Ash Drilling Co.
Leeville Rd.
Lebanon, TN 37087
(615) 444-0276

Herman S. Clark Water Well Contractor
Cheatham Springs Rd.
Eagleview, TN 37060
(615) 274-6464

Mr. H. S. Clark

George Eatherly Drilling Co.
Carthage Hwy.
Lebanon, TN 37087
(615) 255-1093

Mr. George Eatherly

Henry Water Pump & Well Drilling Service
1st Ave N.
Franklin, TN 37064
(615) 794-1784

Jackson Drilling Co., Inc.
204 S. Maple
Lebanon, TN 37087
(615) 244-5644

James Norman Drilling Co.
New Ashland City Rd.
Clarksville, TN 37040
(615) 645-4361

Mr. James Norman

O. L. Norman & Sons
Hwy 47
Dickson, TN 37055
(615) 446-2545

Mr. O. L. Norman

P & L Drilling Co., Inc.
Old Cox Pkw
Fairview, TN 37062
(615) 799-2640

BID LIST

Law Engineering Testing Co.
920 Twin Elms Ct.
Nashville, TN 37210
(615) 255-8331

Mr. Larry Winchester

GEOTEK Engineering Co.
2720 Nolensville Rd.
Nashville, TN 37211
(615) 256-6891

Mr. Ron Jones

Geologic Associates
Reynolds Rd. P. O. Box 668
Franklin, TN 37064
(615) 794-3596

Larry Weber

Beaver Engineering, Inc.
260 West Main
Hendersonville, TN 37075
(615) 824-2824

H. R. Beaver

Fuller, Mossbarger, Scott & May
Civil Engineers, Inc.
1315 Leestown Rd.
Lexington, Kentucky 40508
(606) 233-0574

John Scott, P.E.

A-C Boring, Inc.
Rt. 1 Box 76B
St. Matthews, South Carolina 29135

Charlie Burk

TO RL 330 COST	BIDDER	LUMP SUM	WELL DRILLING 350 L.F.	ROCK CORING 50 L.F.	STAINLESS CASE 140 L.F.	BLACK STEEL CASE 20 L.F.	WELL INSTL.	BACK FILL MATERIALS	WELL DEV.	PERL DIAM	STAND BY TIME	INSURANCE	RESPONSE TIME	EST TIME TO COMPLETE
39,060 per client	GEORGE EATHERLY (unavailable) 11 JUNE 11:30 AM	YES 11,500	10,500	6,000	5,600	160	3,500	400	1400	200/hr	200/hr	YES	7-10 DAYS	14-21D
25,120	FULLER STL (LEXINGTON KY) 14 JUNE 845 AM	? 5,600	6,825	725	3,500	840	4,550	2,450	630	450/hr	80/hr	YES	7 DAYS	14 DAYS
19,270	GOTTEL (NASHVILLE TN) 11 JUNE 930 AM	YES 5,000	7,000	1,000	3,920	100	700	200	350	450/hr	50/hr	YES	10 DAYS	10 DAYS
33,250	LAUD ENGE (NASHVILLE TN) 14 JUNE 230 PM	NO 5,725	5,075	925	3,150	NONE	2082.50	695	630	590/hr	720/day (90 hr)	YES	10 DAYS	7 DAY
16,235	BOEKE REG BY PHONE 14 JUNE (Outside not in formal bid package)	NO 2,350	4,200	1625	4,900	260	1,225	150	525					